

### **Amendments to the Claims**

**Cancel claims 1-8.**

**Add claims 9-14.**

9. (New) A high-melting superalloy comprising (A) from 5 to 65 atomic % of nickel and (B) from 5 to 20 atomic % of at least one metal selected from the group consisting of titanium, zirconium, hafnium, vanadium, niobium, and tantalum, with (C) from 30 to 75 atomic % of iridium or rhodium, or a mixture thereof, and having a two-phase structure in which a  $L1_2$  phase is precipitated in a matrix of a fcc phase, and an amount of the  $L1_2$  phase is from 20 to 80 % by volume.

10. (New) A high-melting superalloy comprising (A) from 5 to 65 atomic % of nickel, (B) from 3 to 15 atomic % of at least one metal selected from the group consisting of titanium, zirconium, hafnium, vanadium, niobium, and tantalum, and (C) from 20 to 75 atomic % of iridium or rhodium, or a mixture thereof, with (D) from 4 to 13 atomic % of aluminium, and having a two-phase structure in which a  $L1_2$  phase is precipitated in a matrix of a fcc phase, and an amount of the  $L1_2$  phase is from 20 to 80 % by volume.

11. (New) A method of producing a high-melting superalloy as set forth in claim 9, which comprises compounding at least one of an iridium-base superalloy made of iridium as a base added with at least one metal selected from the metal group consisting of titanium, zirconium, hafnium, vanadium, niobium, and tantalum and a rhodium-base superalloy made of rhodium as a base added with at least one metal selected from the above-described metal group, with nickel, followed by ingoting to produce a high-melting superalloy.

12. (New) A method of producing a high-melting superalloy as set forth in claim 9, which comprises compounding at least one of an iridium-base superalloy made of iridium as a base added with at least one metal selected from the metal group consisting of titanium, zirconium, hafnium, vanadium, niobium, and tantalum and a rhodium-base superalloy made of rhodium as a base added with at least one metal selected from the above-described metal group, with a nickel-base alloy made of nickel as a base added with at least one metal selected from the above-described metal group, or aluminum, followed by ingoting to produce a high-melting superalloy.

13. (New) A method of producing a high-melting superalloy as set forth in claim 10, which comprises compounding at least one of an iridium-base superalloy made of iridium as a base added with at least one metal selected from the metal group consisting of titanium, zirconium, hafnium, vanadium, niobium, and tantalum and a rhodium-base superalloy made of rhodium as a base added with at least one metal selected from the above-described metal group, with nickel, followed by ingoting to produce a high-melting superalloy.

14. (New) A method of producing a high-melting superalloy as set forth in claim 10, which comprises compounding at least one of an iridium-base superalloy made of iridium as a base added with at least one metal selected from the metal group consisting of titanium, zirconium, hafnium, vanadium, niobium, and tantalum and a rhodium-base superalloy made of rhodium as a base added with at least one metal selected from the above-described metal group, with a nickel-base alloy made of nickel as a base added with at least one metal selected from the above-described metal group, or aluminum, followed by ingoting to produce a high-melting superalloy.